

Having described my invention, I claim:

1.

A system of computers networked by means of the H.323 protocol or the SIP protocol,  
 each of said systems including at least one Gatekeeper means and at least one each of  
 server and client means for operating a client/server multi-user computer application,  
 and, optionally, a firewall means provided with H.323 or SIP proxy, wherein client  
 registration and authorisation in the network are according to registration and  
 authorisation method of H.323 or SIP,

characterised in a user handling database means associated with said  
 Gatekeeper means, and

that each of said Gatekeeper means, server means and client means comprises a real-  
 time codec having a common H.323 or SIP interface, each of said codecs being  
 adapted to co-operate with the respective Gatekeeper means, server means or client  
 means.

2.

A method for alleviating problems of operation and administration of multi-user  
 computer application programs in systems of computers networked by means of the  
 H.323 OR SIP protocol, each of said systems including at least one Gatekeeper and at  
 least one each of server and client for operating a client/server multi-user computer  
 application, and, optionally, a firewall provided with H.323 or SIP proxy, said method  
 comprising the steps of client registration and authorisation in the network are according  
 to registration and authorisation method of H.323 or SIP, characterised

in that the method further comprises:

initiating, by the client, a call set-up with the server as the destination, thereby  
 exchanging information of ports for receiving data and of whether the communication  
 protocol is TCP or UDP,

checking, by the Gatekeeper, in a user profile obtained from a user handling database  
 associated with said Gatekeeper to determined whether or not the client is allowed to  
 make a call set-up towards the server,

informing, by the Gatekeeper, the client of whether or not that the client is allowed to  
 make the call set-up, and

starting, by the client, a data channel towards the server according to an enhanced H.323

or SIP upon the call set-up for which the client is allowed to make, which enhanced  
 H.323 or SIP is enhanced by an extension supporting a specific codec and is operable on

the client and the server, said codec is arranged to be mapped into by a protocol employed by the client and by a protocol employed by the server.

3.

- 5 A method according to claim 2, c h a r a c t e r i s e d i n that the method further comprises:  
transferring, by the client and upon call set-up, data from the client to the server, and vice versa, by means of a selected protocol mapping into the real-time codec.

10 4.

- A method according to claim 2, c h a r a c t e r i s e d i n that the method further comprises:  
closing, the client and when the session established by the call set-up is over,  
connections between the client and the server, and  
15 informing the gatekeeper according to corresponding methods of H.323 or SIP.

5.

- A method according to claim 2, c h a r a c t e r i s e d i n that the client is a game client and the server is a game server.

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6.

- A method according to claim 2, c h a r a c t e r i s e d i n that the method further comprises:  
monitoring , by the gatekeeper, the status of the call set up between the client and the  
25 server, and  
maintaining a record of the duration of the call.

7.

- An arrangement for operation and administration of multi-user computer application  
30 programs in systems of computers networked by means of the H.323 or SIP protocol,  
each of said systems including at least one Gatekeeper and at least one each of server  
and client for operating a client/server multi-user computer application, and, optionally,  
a firewall provided with H.323 or SIP proxy, wherein client registration and  
authorisation in the network are performed according to registration and authorisation  
35 method of H.323 or SIP ,  
c h a r a c t e r i s e d i n that each gatekeeper, client, server and optional  
firewall element of the system is provided with a co-operating H.323 or SIP protocol

enhancement function means comprising a specific real-time codec being adapted to co-operate with a respective Gatekeeper, client, server or optional firewall element.

8.

- 5 Method of using of a H.323 or SIP telecommunication network arrangement in a computer network game system including a plurality of computer network game clients and at least one respective computer network game server, said server optionally being protected by a computer network firewall, c h a r a c t e r i s e d i n that the method comprises:
- 10 controlling a clients access to the server,  
allowing, optionally, undisturbed data communication through the firewall between a server and a respective client,  
obtaining data for a clients usage of the server, the data being useful for usage charging, and
- 15 handling and recording communication faults and irregularities.

9.

- A method of providing co-operative real-time operation of a client part and a server part of a client-server real-time computer program application over a computer network, the
- 20 client and server parts being adapted with a data exchange interface to a standard multimedia computer call control and communication program, c h a r a c t e r i s e d i n
- invoking a client part of a client-server real-time computer program application, invoking a client call control part of a standard multimedia computer call control and
- 25 communication program,  
invoking a server part of said a client-server real-time computer program application, invoking a server call control part of said standard multimedia computer call control and communication program, and
- 30 effecting a multimedia call from said client call control part to said server call control part, thereby establishing a real-time communication link between the client part of said client-server real-time computer program application and the server part of said client-server real-time computer program application.

10.

- 35 A method of establishing and running co-operative real-time operation of a client part and a server part of a client-server real-time computer program application over a computer network, the client and server parts being adapted with a data exchange

interface to a standard multimedia computer call control and communication program, ,  
c h a r a c t e r i s e d i n :

invoking a client part of a client-server real-time computer program application,  
invoking a client call control part of a standard multimedia computer call control and  
5 communication program,  
invoking a server part of said a client-server real-time computer program application,  
invoking a server call control part of said standard multimedia computer call control and  
communication program,  
communicating a setup message from said client call control part to said server call  
10 control part,  
communicating an accept message from said server call control part to said client call  
control part,  
communicating a media suggestion and control receiver address message from said  
client call control part to said server call control part,  
15 communicating a media accept and data destination message from said server call  
control part to said client call control part,  
communicating a media suggestion and control receiver address message from said  
client call control part to said server call control part,  
communicating a media accept and data destination message from said server call  
20 control part to said client call control part,  
communicating a control message, as required by said application program server part,  
from said application program server part to said application program client part, and  
communicating data, as specified by said control message, from said application  
program client part to said application program server part.

11.

The method of claim 10, c h a r a c t e r i s e d i n that communicating the  
control message and the data message, respectively, is effected by direct message  
communication between said application program client part and said application  
30 program server part.

12.

The method of claim 10, c h a r a c t e r i s e d i n that communicating the  
control message and the data message between said application program client part and  
35 said application program server part, respectively, is effected by communicating said  
messages via said client call control part and said server call control part.

13.

The method of claim 9 - 12, c h a r a c t e r i s e d i n that said standard multimedia computer call control and communication program operates according to H.323 or SIP.

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14.

The method of claim 9 - 13, c h a r a c t e r i s e d i n that said client part of a client-server real-time computer program application and said client call control part of said standard multimedia computer call control and communication program operate on a first computer platform, and

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that said server part of said a client-server real-time computer program application and said server call control part of said standard multimedia computer call control communication program operate on another computer platform.